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Presently, I have a post-doc position in the LUNA (Laboratory for Underground Nuclear Astrophysics) collaboration. This experiment, located in the underground Gran Sasso National Laboratory (LNGS), is devoted to the measurement of cross sections of fusion reactions of astrophysical interest. Since December 2016 I am coordinating the working group devoted to the measurement of the ${}^2\text{H}(p,\gamma){}^3\text{He}$ reaction. This cross section is the major source of uncertainty on the calculation of the primordial deuterium abundance with the Big Bang Nucleosynthesis theory. I also took care of the ${}^{13}\text{C}(\alpha,n){}^{16}\text{O}$ cross section measurement, at beam energies between 200 and 400 keV, which releases the neutron flux responsible of the nucleosynthesis of the heavy elements in AGB (Asymptotic Giants Branch) stars through the s process (slow neutron capture). In 2015, I spent a period of six months at the Helmholtz Zentrum Dresden Rossendorf (Dresden-Germany), having obtained a research fellowship: "Research Grants - Short-Term Grants, 2015". During my staying, I took care of the neutron flux measurement in the Felsenkeller underground laboratory.

In March 2015, I took my PhD at the University of Genova, Italy. In particular, I took care of the measurement of the ${}^{22}\text{Ne}(p,\gamma){}^{23}\text{Na}$ cross section, which contributes to the NeNa cycle of hydrogen burning in second generation stars. Such cycle is particularly important for the nucleosynthesis of Ne and Na isotopes.

In October 2011, I took the master degree in Physics. I worked in the Borexino collaboration and I studied the sensitivity of the present experimental setup to neutrino oscillations toward a new flavour: the sterile neutrino.